AMP Comments and

MAAM Discussion/Responses

Six of the communities within the Municipal Alliance for Adaptive Management (MAAM), prepared an Adaptive Management Plan (AMP) in July of 2021 and updated in July of 2022. MAAM received informal comments from the Environmental Protection Agency (EPA) on September 6, 2022, and comments from the MAAM Stakeholder Committee at our members meeting on September 15, 2022. The following outlines each of the comments, with an update on MAMM current status/response. This is not intended to be a formal response to comment; it is intended to summarize the discussion.

For organization, the comments have been shown in **bold**, with responses in *italics.*

EPA Comments:

In the future, updates to the AMP can be aligned with the annual reporting to CLF (i.e., in September) rather than having MAAM submit the update in July followed by an annual report in September.

MAAM will not hold to the end of July deadline to update the AMP, and rather hold off to submit once Nitrogen Reduction updates have been completed.

Part a) Monitoring Ambient Water Quality in Great Bay; a.1 Statement of Responsibilities (p. 9) MAAM states that it "has committed to continue funding monitoring efforts through the 5-year permit term." Is this term the same as the "5-year monitoring and data analysis plan" referred to in the Gantt chart (Proposed Completion Timeline for Final Plan) in the TMDL section on p. 20?

As outlined in the AMP, MAAM is committed to continued funding for PREP research. This commitment does not have a specific end date, but at a minimum, the commitment will continue through the 5-year term of the TNGP.

It is noted that standardizing terms and potentially providing definitions would improve the AMP.

In Part e (TMDL section, p. 20), MAAM states "One of our priorities for 2021 is to work with the PREP Technical Advisory Committee, the PRMC workgroup, and NHDES to develop a multi-year monitoring and data analysis plan to outline activities." However, in Part a (Monitoring) MAAM indicates that a plan has essentially been completed. The Gantt chart (p. 20) indicates that the "5-year monitoring and data analysis plan" was

scheduled to be completed in mid-2022. Assuming they're all the same thing, can't they be called the same thing in the different places?

We do not have a single post-RAMP/Prospectus document that is labelled as a 5-year monitoring and data analysis plan. The development of such a document was an original goal of the AMP, but in practice was replaced by the annual planning process. Since 2020, PREP, PRMC, and MAAM have conducted an annual planning exercise that involves various discussions over the year (including the summer PRMC meeting), and leads to MAAM's fall prioritization of funding opportunities. Although this annual process focuses on the upcoming monitoring year, the research and funding priorities have been developed with an evolving vision for multi-year research needs, and many of the studies are multi-year or ongoing efforts. There are various documents related to this planning process; including PRMC meeting materials, and BC's memos on funding priorities.

As was initially indicated in the AMP, the data will be collected first and ultimately NHDES will lead the timing and decisions around the creation of the TMDL.

It is noted that standardizing terms and potentially providing definitions would improve the AMP. Additionally, the AMP may need to be modified to specifically pull out the parts of the larger RAMP that are directly connected to the work MAAM is doing.

a.2 Summary of Water Quality Monitoring Plan (p. 9-10) The updated data collection plan increased Tier 1 aerial eelgrass monitoring from every two years to annually and reduced number of Tier 2 monitoring sites for measures of eelgrass abundance from 50 sites to 25 sites in June/July and eight sites in April and October. The plan indicates that MAAM would consider obtaining river discharge measurements on rivers for which no data currently exists. The plan suggests that MAAM would consider coordinating with USGS or conducting additional monitoring. EPA recommends pursuing river discharge measurements for the three additional rivers and encourages MAAM to provide an update on its plans to obtain these measurements by next year.

The 2023 PREP study list includes the MAAM-funded "Tributary Discharge Monitoring (expansion)", with the goal of extending existing tributary discharge monitoring at three locations. The project has two major steps: (1) a review of appropriate methods; and (2) working with USGS to deploy stage height sensor and build a rating curve. The study leader is Michelle Shattuck from the Water Quality Analysis Lab, UNH. Based on the limited funding request for 2023 ($5k), we believe that 2023 effort will serve to establish methods and initiate measurements. Full rating curves might be not be available in 2023, but would presumably be developed as soon as sufficient discharge measurements are available.

Part b.2 Summary of Nitrogen Tracking Plan – Alternative Tracking System Evaluation (p. 13) MAAM explains the value of PTAP for quantifying nitrogen load reductions but indicates that it may evaluate alternative tools that are similar to PTAP "*but* via 'open source' software" (emphasis added). Both the BATT and PTAP are open source software. The "but" at the end of this paragraph seems to imply that they are not. EPA encourages the use of PTAP for tracking in order to maintain consistency of reporting

nitrogen reductions throughout the watershed. EPA invites MAAM to inform EPA and NHDES of any technical assistance or training needs to encourage use of PTAP among its members.

MAAM is continuing to work with the PTAP and BATT programs. The implication that these are not open source will be corrected in further AMP submissions.

Appendix A – Piscataqua Region Estuaries Partnership (PREP) Draft Research and Monitoring Plan (RAMP) The AMP includes PREP's Draft Research and Monitoring Plan (RAMP) from May 2020. Does MAAM intend to work with PREP to update the RAMP to reflect any refinement of the 5-year monitoring and data analysis plan (which is nested within the RAMP) during the 2021-22 timeframe?

The starting point for this planning was the RAMP and the Research/Monitoring Prospectus. Since 2020, PREP, PRMC, and MAAM have conducted an annual planning exercise that involves various discussions over the year (including the summer PRMC meeting), and leads to MAAM's fall prioritization of funding opportunities.

We can add clarity in the AMP.

Appendix B – Piscataqua Region Monitoring Collaborative (PRMC) Draft Research/Monitoring Prospectus. Since the "resilience and positive feedbacks" research proposal (Appendix B) has been accepted and funded, is there an updated work plan (i.e., with more details, personnel changes, etc.)?

No changes to date, future changes will be included in updates to the AMP.

Appendix D – Overall Source Reduction Plan

Appendix D lists the planned and completed projects for each municipality in MAAM (except Exeter) and includes the cost and estimated total nitrogen (TN) reduction potential for best management practices (BMPs) associated with each project. A clear understanding of the implementation of BMPs is integral to EPA's ability to assess the incremental progress of the Adaptive Management Plans in each community and to evaluate the overall nitrogen reductions for the next issuance of the General Permit. For this reason, EPA has several suggestions for improving the transparency and readability of Appendix D.

Generally, the information should be presented in way that makes it clear which projects have been completed (if possible, with updated load reduction estimates and costs based on the finished work),

PTAP is tracking the completed work versus what has been simply permitted. For now, we are not focusing on costs as there are so many variables and a lot of the work is being done privately.

which ones are being constructed, and which ones are still in the planning and design phase?

PTAP will add a "proposed" and "constructed" designation.

In addition, it should be clearly stated what each municipality's baseline TN load is and the annual and cumulative TN load reduction should be summarized for each subsequent year. If possible, it should include both TN reductions AND any increases in TN loading from new development (look at General Permit and Settlement Agreement and see what is required).

PTAP tracks added and removed TN.

Finally, it would be more useful if each municipality used the same format and provided similar information, such as that listed below.

- **Update table to specify projects that are planned (including estimated load reductions for proposed projects) and those that have been completed for credits.**
- **Number of acres in a catchment area for a particular BMP or group of BMPs is an important variable, especially if they can be differentiated between pervious and impervious.**
- **For planned projects indicate the following information if available. We recognize that some early planning level projects that the community wishes to include in the AMP App. D may lack enough detail to provide all information.**

  For now, we are going to focus on the constructed projects for this level of detail. The individual lists for proposed projects will serve to show a clear and undeniable plan to reduce nitrogen, however, municipalities will continue to create these planning lists in different ways. We believe that the focus for our limited resources should be on properly tracking constructed projects.

  - **Brief description of management action (e.g., structural sw control treatment, street cleaning)**
  - **For SW management actions: Area subject to management action and amount of impervious cover to be managed**
  - **For other activities provide the scope of the planned management effort (e.g., number of septic system retrofits)**
  - **Entity responsible to implement the action (e.g., Muni, private entity for redevelopment project achieving net load reduction).**
  - **Estimated cost to municipality for management action. If management action is part of larger project (e.g., road reconstruction) please provide estimate of cost associated with management action only.**
  - **Identify if standalone management project or if part of larger project municipal project.**

- **For accomplished projects indicate the following information if available (this would apply to annual reporting as well.**
    - **Brief description of management action (e.g., structural sw control treatment, street cleaning)** *This is included in the BATT and PTAP tracking*
    - **For SW management actions: Area subject to management action and amount of impervious cover being managed** *This is included in the BATT and PTAP tracking*
    - **For other activities provide the scope of the management effort (e.g., number of septic systems retrofitted)** *We will continue to work on tracking these types of projects*
    - **Responsible party that implemented the action (e.g., Muni, private entity for redevelopment project achieving net load reduction) and who is responsible for long-term maintenance.** *Owner is included in the BATT and PTAP tracking… we will continue to work on including the long-term O&M tracking*
    - **Implementation cost (engineering, design, and construction) to municipality for management action. If management action is part of larger project (e.g., road reconstruction) please provide cost associated with management action only.** *For now, we are not focusing on costs as there are so many variables and a lot of the work is being done privately.*
    - **Identify if standalone management project or if part of larger project municipal project.** *PTAP and BATT only track the actual BMP's, so this distinction is not really needed.*
    - **Overall annual municipal programmatic cost for planning, permitting, and implementing management actions as part of AMP for achieving nitrogen reductions. It also would be valuable to include similar costs for MS4 implementation; all these efforts will have ancillary benefits for TN reduction.** *For now, we are not focusing on uniformly tracking costs as there are so many variables and a lot of the work is being done privately. Communities individually need to, and are, looking at funding for stormwater/flood resiliency as part of regular budgeting. CWINS and other initiatives are tracking costs.*

We should discuss the feasibility and utility of creating a GIS map with municipal planned and completed projects and the catchment areas treated by each project.

For now, we are focusing our limited resources on correctly tracking and accounting for the work that we are doing. As the program progresses, we can determine if additional mapping is needed.

Finally, moving forward we don't necessarily need to keep Appendix D in its current format. EPA is willing to work with MAAM (and other municipal permittees) to refine the information in future AMP updates/annual reports so that it provides what we need to gage progress and is feasible for the municipalities to compile and report.

As work has progressed, better data is being made available through the PTAP and BATT programs. It is believed that much of the information in PTAP addresses this comment. MAMM will rely more on data outputs to demonstrate nitrogen load reductions. We are working on a reporting template that will incorporate many of the suggested revisions.

Stakeholder Group Comments:

No apparent progress in updated Appendix D relative to concerns expressed in 3/25/22 letter to EPA:

- **Lack of consistency in estimating load reductions**
- **No sense of collective impact of the reduction activities**
- **No sense of priority relative to hot spot mapping**
- **No long-term control plans – it's still a compilation of existing programs and investments.**

As data is being collected in the PTAP, a consistent load reduction estimation is being established. MAAM is currently working on a standardized reporting template that will clearly outline the load reductions. Future planning will continue to be done by the individual community and may vary in appearance or organization, however, based on the number of different projects and initiatives planned in the near and long terms it is clear that there will be nitrogen load reductions. As part of the MS4 permit, communities have worked with NHDES and the UNH stormwater center to develop Hot Spot Mapping and investigate potential nitrogen reduction opportunities. The plans being prepared as part of the annual update far exceed any of the screening data that comes from the Hot Spot maps. There have been many new initiatives started as a result of the need for nitrogen reduction.

What is the status of the dashboard which was a commitment in the Settlement Agreement? A tool like this would help answer some of the questions the SC and others have about where we are and what headway we're making. It could be a helpful translator from these community-by-community spreadsheets to something more regional.

MAAM and PTAP are working to develop a data output template which will outline the nitrogen reductions being achieved/reported in each community. MAAM is also developing a website which will publicly house this information.

How are communities accounting for and managing new development?

PTAP accounts for change in coverage, so new developments will show an increase in Nitrogen due to the added impervious coverage, but then a decrease offsetting that due to BMP's.

Long term trends are analyzed using regional land use data.

Dover and Portsmouth are seeing rapid growth in multi-family housing so it's a lot of impact both at the WWTF and on the sites themselves. The permit requires the point source limits even as volumes increase but it's still more N in the system.

The permit does not allow for any net increase in Nitrogen regardless of flow growth with the exception of extending sewer to previously septic areas.

On the stormwater side, are the ordinances that are in place stringent enough to prevent ongoing impacts from new development? Are we really REDUCING, or just slowing the rate in INCREASE?

The Southeast Watershed model ordinances, which have been adopted by all MAAM communities, require reductions that are more stringent that the NHDES AoT requirements. Maybe most notable, they include reductions as part of any redevelopment project, meaning that any existing site that is disturbed will incorporate nitrogen reductions. PTAP will analyze the long-term trends to see if this is resulting in nitrogen reductions.

What are the communities doing that is new as a result of the permit? Portsmouth and Rochester both list hot spot mapping – has this been done and how is it informing where the municipalities are focusing their effort?

The hot spot mapping has been completed as a screening tool in accordance with the MS4 permits. The reduction plans being submitted go beyond this initial screening, to outline specific locations and planned projects. In order to make a large difference in nitrogen reduction, communities are incorporating BMP's and other N reducing efforts into all projects. As a result, communities can work within their existing CIP to find ways to incorporate N reductions.

What are Water Quality Units in many of the projects identified in Portsmouth?

Rochester – what BMPs are they using on the road reconstruction that are producing such small N reductions relative to road reconstruction in other communities that seem to have greater associated load reductions? Questions as to why projects that have basically no N load reductions are even included in the report.

All communities talk about advocating for state regs re fertilizers and septic systems – what kind of advocacy is going on to push DES and the legislature?

Gretchen Young, the chair of MAAM, attended both State House and Senate committee meetings to provide testimony supporting the inclusion of nitrogen reducing septic enhancements as an allowable reduction in stormwater utilities. We will continue to support other relevant initiatives at the state.

Many of the communities, including Portsmouth, Exeter, and Dover (and maybe others) are including fertilizer bans or requirements for slow release fertilizer etc. into local ordinances. It is the hope that with these cropping up across the state, NHDES may be able to implement statewide changes in the products being sold in local stores to only provide slow release nitrogen.

Questions about what the other 4 communities within MAAM are doing, as well as the 5 communities not part of MAAM but part of the permit.

At the September MAAM meeting, Exeter shared numerous projects that are incorporating nitrogen reduction. Rollinsford and Milton continue to monitor as is required by the TNGP, additionally they have adopted the SWA model stormwater ordinance and continue ongoing practices such as street sweeping and septic system monitoring. Newington also has adopted the SWA model ordinance, which includes provisions for redevelopment in excess of what the state requires. Newington is poised to see large amounts of redevelopment which will bring associated nitrogen reductions. Folks from PTAP continue to work to provide training on how to require input into PTAP and how to input local municipal initiatives… more specific analysis of what is being done will become apparent as PTAP gains traction.